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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SMITH, SHEILA B

ART UNIT PAPER NUMBER

2617

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/675,007	JEYASEELAN ET AL.	
	Examiner	Art Unit	
	Sheila B. Smith	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over XP-001103127 in view of Rudrapatna et al. (U.S. Patent Number 6,052,598).

Regarding claim 1, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a method comprising: comparing a metric against a threshold; and setting a timer to delay a roaming attempt by a wireless network client (which reads on page 1 the introduction). However, the reference XP-001103127 fails to disclose a determining a metric representing a quality of a current association between a wireless network client and an access point.

In the same field of endeavor Rudrapatna et al. discloses a method for predicting the location of a mobile station in a mobile communication network. In addition Rudrapatna et al. discloses a determining a metric representing a quality of a current association between a wireless network client and an access point as disclosed in column 1 lines 60-67 and column 2 lines 1-40.

Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify the reference XP-001103127 with determining a metric

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representing a quality of a current association between a wireless network client and an access point as taught by Rudrapatna et al. for the purpose of anticipating resource allocation needs of the mobile unit.

Regarding claim 2, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a metric comprises a received signal strength indicator (which reads on page 2 the analytical model).

Regarding claim 3, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a metric comprises a current data rate (which reads on the entire document).

Regarding claim 4, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a metric comprises a number of packet retries (which reads on the entire document).

Regarding claim 5, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a comparing a plurality of metrics against a plurality of thresholds, and setting the timer in response (which reads on the entire document).

Regarding claim 6, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area

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and timer based location registration scheme. In addition XP-001103127 discloses a metric comprises a received signal strength indicator, and the threshold is dependent on the current data rate (which reads on the entire document).

Regarding claim 7, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a method comprising setting a timer to one of a plurality of values to delay a roaming attempt by a mobile station in a wireless network, wherein the mobile station attempts to roam after the timer expires (which reads on page 1 the introduction).

Regarding claim 8, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a timer comprises comparing at least one metric to at least one threshold, and setting the timer in response (which reads on page 2 the analytical model).

Regarding claim 9, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the value to which the timer is set is influenced by a perceived quality of a current association (which reads on page 2 the analytical model).

Regarding claim 10, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the perceived

quality of the current association is relatively low, the timer is set to a value that is relatively low (which reads on page 2 the analytical model).

Regarding claim 11, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the perceived quality of the current association is relatively high, the timer is set to a value that is relatively high (which reads on page 2 the analytical model).

Regarding claim 12, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a timer comprises setting a hardware timer (which reads on page 2 the analytical model).

Regarding claim 13, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses setting a timer comprises setting a software timer (which reads on page 2 the analytical model).

Regarding claim 14, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a first metric to a first threshold and conditionally setting a timer to a first value; comparing a second metric to a second threshold and conditionally setting the timer to a second value; and attempting to roam when the timer expires (which reads on page 1 the introduction).

Regarding claim 15, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the first metric comprises a data rate (which reads on page 1 the introduction).

Regarding claim 16, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses first threshold corresponds to the lowest possible data rate (which reads on page 2 the analytical model).

Regarding claim 17, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the second metric comprises a received signal strength indicator (which reads on page 1 the introduction).

Regarding claim 18, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the second threshold is dependent on the current data rate (which reads on page 2 the analytical model).

Regarding claim 19, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the second value is larger than the first value (which reads on page 1 the introduction).

Regarding claim 20, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area

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and timer based location registration scheme. In addition XP-001103127 discloses comparing a percentage of missed beacons to a threshold, and conditionally attempting to roam in response (which reads on page 1 the introduction).

Regarding claim 21, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a apparatus including a medium adapted to hold machine-accessible instructions that when accessed result in a machine performing: comparing a first metric to a first threshold and conditionally setting a timer to a first value; comparing a second metric to a second threshold and conditionally setting the timer to a second value; and attempting to roam when the timer expires (which reads on page 1 the introduction).

Regarding claim 22, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the first metric comprises a data rate (which reads on page 1 the introduction).

Regarding claim 23, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the first threshold corresponds to the lowest possible data rate (which reads on page 1 the introduction).

Regarding claim 24 XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area

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and timer based location registration scheme. In addition XP-001103127 discloses the second metric comprises a received signal strength indicator (which reads on page 1 the introduction).

Regarding claim 25, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a apparatus comprising: a radio interface to interact with a wireless network; and a processor coupled to the radio interface, wherein the processor is adapted to set a timer based on a perceived quality of a current association, and further adapted to attempt roaming when the timer expires (which reads on page 1 the introduction).

Regarding claim 26, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the timer is at least partially implemented in hardware (which reads on page 2 the analytical model).

Regarding claim 27, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the timer is at least partially implemented in software (which reads on page 2 the analytical model).

Regarding claim 28, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a electronic system comprising: an omni-directional antenna; a radio interface coupled to the omni-directional antenna to interact with a wireless network; and a processor coupled to the radio

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interface, wherein the processor is adapted to set a timer based on a perceived quality of a current association, and further configured to attempt roaming when the timer expires (which reads on page 1 the introduction).

Regarding claim 29, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the timer is at least partially implemented in hardware (which reads on page 2 the analytical model).

Regarding claim 30, XP-001103127 discloses essentially all the claimed invention as set forth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the timer is at least partially implemented in software (which reads on page 2 the analytical model).

Response to Arguments

2. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period


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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheila B. Smith whose telephone number is (571)272-7847. The examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S. Smith 
July 8, 2006


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER